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Dielectric response of different complex materials

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Abstract

In this paper we describe novel results of the application of the non-orthogonal amplitude-frequency analysis of the smoothed signals (NAFASS) approach [1] for the analysis of the dielectric response of some complex materials. Our goal is to convince experimentalists that the NAFASS approach can serve as a useful tool in the cases when an underlying physical model is absent or in cases when it is necessary to calibrate the equipment with uncertain quantitative characteristics. The parameters obtained in the frame of the NAFASS approach can be used as metrological parameters for comparison of electromagnetic responses associated with properties of different dielectric materials. © 1994-2012 IEEE.

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Keywords

Dielectric materials, dielectric measurements, methods of SN analysis